BILL'S HOME TECH

Home & Small Business Tech Solutions

An Extended Guide · No. 1378

Interlock Kit for Well-Pump Backup

Keeping the water running for rural homes

Tech Made Simple — Service Made Personal

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! Read this first — panel work is a licensed electrician's job

A generator interlock kit is installed inside your home's electrical panel, and panel work is among the most dangerous jobs in any house. The power inside a panel can injure or kill even with the lights off, and a wiring mistake can start a fire or push deadly voltage back onto the lines outside, where a utility crew may be working. Adding an interlock — the sliding plate, the generator breaker, and the inlet it connects to — is a licensed electrician's job, almost always with a permit and an inspection. It is never a do-it-yourself project, and it is never something I do myself. This guide is here to help you understand, choose, and safely use an interlock — not to wire one. And please, never try to shortcut all this by backfeeding a generator through a wall or dryer outlet with a double-ended cord; that shortcut kills people, and an interlock kit is the safe, legal way to do the very thing it tempts you to do. On a well, the pump is the reason to have backup power at all — and reaching its hardwired breaker safely is exactly what a licensed electrician installs an interlock to do.

Keeping the water running when the power stops

If your home runs on a private well, an outage doesn't just mean darkness — it means no water at all. An interlock lets your generator power the well pump, so your taps keep running through the storm.

I'm Bill, and out here in Portage County a great many homes are on wells. Folks on city water sometimes forget that when your own pump loses power, the taps simply go dry — no drinking, cooking, flushing, or water for the animals. For a well home, backing up the pump is usually the single biggest reason to get an interlock.

An interlock suits a well nicely because your pump is wired straight into your panel, and the interlock reaches every breaker there. The wiring stays with a licensed electrician and a permit, and the pump itself with a well pro — my job is helping you understand, plan, and use it well.

★ On a well? Let's plan your water backup

Tell me about your well setup and I'll help you plan reliable water for the next outage — and line up the right pros. Call or text (330) 200-8042.

Well-pump backup, on one page

If you remember only these, you understand the heart of it.

- ❑ On a well, no power means no water — the pump stops when the grid does.
- ❑ A well pump is hardwired and usually 240-volt, so a cord can't power it; an interlock reaches its breaker in your panel.
- ❑ The pump is a big motor with a large starting surge — bring it up on its own, not while another motor is starting.
- ❑ Your pressure tank stores some water, so the pump cycles rather than running every minute.
- ❑ Size the generator for the pump's surge, with headroom — undersized power can strain and damage the motor.
- ❑ Store drinking water and fuel too — the generator is one layer of the plan, not the whole thing.

> **✔ Water is the rural priority**
> For most well homes, keeping the pump running is the top reason for an interlock. Plan it first, and the rest fits around it.

Why an outage means no water

It catches people off guard, so let's be plain about it.

A private well uses an electric pump to draw water up and push it through your home's plumbing. When the power goes out, that pump stops, and so does your water. You may get a little from the pressure tank at first, but once that's gone the taps run dry — no drinking water, no cooking, no flushing, and nothing for pets or livestock. In a long outage, that quickly becomes the most pressing problem, ahead of even the lights or the heat.

> **✔ Water rises to the top of the list**
> In a long rural outage, water often matters more than anything else. An interlock that powers the pump changes the whole experience.

Why an interlock is a fine fit for a well

This is the key reason an interlock works so well for rural homes.

A well pump is hardwired into your electrical system — there's no plug to run an extension cord to — and most home well pumps are 240-volt, which ordinary cords and outlets can't provide. An interlock reaches right into your panel, so your electrician can make sure the well pump's own 240-volt breaker is there to switch on during an outage. A cord to a fridge is easy; a well pump is a different animal entirely, and it needs a proper panel connection like an interlock or a transfer switch.

> **! Never improvise a pump connection**
> Because the pump is 240-volt and hardwired, there's no safe do-it-yourself shortcut and never a cord. It must go through a proper interlock or transfer switch, wired by a licensed electrician with a permit.

The well pump's big starting surge

A well pump is among the hungriest things you'll power, especially at the instant it starts.

Like other motors, a well pump needs a large jolt of power to get going — often several times what it draws once it's running steadily. That starting surge is usually the single biggest power demand in a rural home, and it's what your generator must be able to handle. It's why, on a well, we size the whole system around the pump first, then fit the rest of your list around it. Our sizing guide walks through the idea without any invented numbers.

> **✔ Size around the pump first**
> On a well, the pump's surge is usually the number that sets your generator size. Get that right and the rest tends to fall into place.

Bring the pump up on its own

Because the pump's surge is so large, when you start it matters as much as whether your generator can handle it.

When you're ready for water, bring the well pump's breaker up by itself — not at the same instant the furnace blower or sump pump is starting. Give that big surge a clear runway, while the generator has the most to give and nothing else is kicking on. Once the pump is running steadily on its smaller draw, you can add other loads. Two big motors trying to start together is the surest way to overload a generator.

> **✔ One big motor at a time**
> Start the pump on its own, let it settle, then bring up the furnace or fridge. Never let two big motors surge at the same moment.

How the pressure tank helps you

A friendly bit of equipment you already own makes outages easier than you'd think.

Your well system includes a pressure tank that stores some water under pressure, so the pump doesn't have to run every time you open a tap. During an outage on generator power, this means the pump kicks on to refill the tank now and then, rather than running constantly — which is exactly what lets you cycle it with your other loads. It's a natural buffer that makes backing up a well pump far more practical than it might sound.

> **✔ The tank buys you flexibility**
> Because the tank stores water, you don't need the pump running all the time — which frees the generator's power to share with the furnace and fridge.

Cycling the pump during an outage

Here's how the pump fits into a smooth outage routine.

You don't need the well pump's circuit on every minute. A common rhythm is to bring the pump up to refill the pressure tank and meet your water needs, then turn its breaker off and switch attention to other circuits like the furnace and fridge. Because the tank holds water, this cycling works nicely and keeps your generator from being asked to do too much at once. Our load-management guide covers the general habit; on a well, the pump is simply the biggest player in it.

> **✔ Fill the tank, then move on**
> Run the pump to top off your water and the pressure tank, then give the generator's power to other needs. Repeat as the tank draws down.

Two kinds of homes, two sets of needs

This one's really a tale of two water sources — and it changes how much this guide matters to you.

If you live in town or the suburbs

In town on city water, your water keeps flowing during an outage because the city's system stays pressurized. So pump backup usually isn't a concern — though a few in-town homes have a booster pump, an irrigation pump, or a sump pump that still matters.

- On city water, the taps keep working in an outage — no well pump to back up.
- If you have a basement, a sump pump may still be worth backing up (see our sump-pump guide).
- An in-town well, booster, or irrigation pump would follow the same rules as below.
- Your must-run list can focus on heat, food, and light instead of water.

If you are out in the country on a well

Out on a private well, this guide is essential. Your pump is your water, and backing it up is usually the top reason for an interlock. Plan the generator around the pump, and keep stored water as a backstop.

- Your well pump is your entire water supply — back it up first.
- It's a big 240-volt motor with a large surge — size the generator for it, with headroom.
- Keep the pressure tank in mind — it buffers water so the pump cycles rather than runs constantly.
- Store several days of drinking water and fuel; the interlock and generator are one layer, not the whole plan.

> **★ On a well and want reliable water?**
> I'll help you plan pump backup end to end — sizing, the right pros, and stored-water habits. Call (330) 200-8042.

Store drinking water as a backstop

Even with a great interlock setup, stored water is wise insurance.

The generator is one layer of your water plan, not the whole thing. Keep a supply of stored drinking water — enough for several days for everyone in the household and any animals — in case the generator has trouble, fuel runs short, or you simply don't want to run the pump at a given moment. It's cheap peace of mind, and it means a hiccup with the generator never leaves you without water to drink.

> **✔ A few days' water, always**
> Store enough drinking water for several days, refreshed now and then. It's the simplest backup to your backup.

Sizing the generator for your pump

You don't need to guess numbers — your pump and generator tell you what you need to know.

The honest way to size for a pump is to learn its actual demands: read the pump's nameplate, check its paperwork, or ask the well company for its horsepower. Then your electrician confirms a generator with enough 240-volt output and surge capacity to start and run it comfortably, with headroom. I won't state a wattage, because pumps vary widely — but the method is simple: find your pump's real needs, then match the generator to them. Our sizing guide walks it through.

> **★ I'll help you find your pump's numbers**
> Not sure of your pump's size? I'll help you read the nameplate or ask the well company, then match a generator to it. Call (330) 200-8042.

Why undersized power can harm the pump

This is a reason to size generously, not just adequately.

If the generator can't deliver enough power for the pump, the pump doesn't just fail to run well — it can hum, strain, and overheat, and over time that can damage the motor. A well pump is costly and hard to replace, since it's often deep in the ground, so it's worth sizing your generator with comfortable headroom rather than cutting it close. Protecting the pump is protecting a big investment.

> **! Too little power is hard on the pump**
> Starving a pump for power can damage its motor. When in doubt, size the generator generously — the pump is far costlier than the extra capacity.

Who handles the pump side

The well pump touches two kinds of pros, and neither is me for the hands-on work.

- **A licensed electrician** installs the interlock and confirms the pump's 240-volt breaker and connection, with a permit and inspection.
- **A well or pump company** handles the pump itself — repairs, replacement, and its horsepower and specifications.
- **I help** you plan, understand your pump's needs, size the generator, and coordinate the right pros.
- **You** operate the interlock and cycle the pump during an outage.

> **★ I'll coordinate the right people**
> Between the electrician and the well company, I'll help you get the right pro for each part. Call or text (330) 200-8042.

The panel steps for water

Here's how the pump fits into the interlock's own operating sequence — our using-during-an-outage guide has the full routine.

Once the generator is running safely outside and the cord is connected, you go to the panel: turn the main breaker off, slide the interlock plate over, and turn the generator breaker on. Then, when you want water, turn the well pump's breaker on by itself first — let that big surge land cleanly and the pump settle — before adding the furnace, fridge, or other circuits one at a time. If the plate ever resists, the main isn't fully off; never force it.

> **✔ Pump first, then the rest**
> After the generator breaker is on, bring the pump up on its own, let it steady, then add your other loads. Biggest surge always gets a clear runway.

Test the pump on generator power

Don't wait for a real outage to learn whether the pump starts on the generator.

When the electrician installs and tests your interlock, make sure the well pump is part of the test — that it starts cleanly on generator power and runs without the generator straining. This confirms the sizing is right and the connection works. It's far better to learn of any issue on a calm test day than during a stormy night with the taps already dry.

> **★ Insist the pump gets tested**
> The pump test is the one I most want you to witness. I'm glad to be there for it. Call (330) 200-8042.

Cold weather and the well

In an Ohio winter, water backup and freeze protection go hand in hand.

The storms that knock out power are often winter storms, and keeping water flowing helps keep pipes from sitting still and freezing. Keep the generator dry and its exhaust clear of drifting snow, and make sure any pump house or exposed plumbing has whatever freeze protection your well professional recommends. Reliable pump power plus sensible freeze protection keeps a rural home livable through the worst weather.

> **✔ Keep water moving in the cold**
> Running water and a warm-enough home help prevent frozen pipes. Backup power for the pump and furnace work together in winter.

One vital safety reminder

Running the pump means running the generator — so the biggest generator danger is always right there with you.

! Read this first — carbon monoxide is the real danger

A running generator's exhaust contains carbon monoxide — an invisible, odorless gas that can kill in minutes. Never run a generator indoors, in a garage, in a shed, or on a porch, not even with the door open and a fan going. Run it outside only, well away from the house — the safety agencies say at least 20 feet — with the exhaust pointed away from every window, door, and vent. Put battery-backup carbon-monoxide alarms on each floor and outside the bedrooms. If an alarm sounds, or anyone feels dizzy, sick, or sleepy, get everyone into fresh air first and ask questions later. Powering a well pump changes nothing about where the generator sits — outdoors only, far from the house, exhaust pointed away, with carbon-monoxide alarms on inside, every time.

Common well-pump backup mistakes

A few slip-ups trip up well homes. Here's how to avoid them.

- **Trying to cord-feed the pump** — impossible and unsafe; it's hardwired 240-volt and needs an interlock or transfer switch.
- **Undersizing the generator** for the pump's surge, straining both the generator and the pump.
- **Starting the pump alongside another motor** — two big surges at once overloads the generator; bring the pump up on its own.
- **Skipping stored water** and relying on the generator alone.
- **Not testing the pump** on the generator before an outage.

> **! The two costly ones**
> Undersizing the generator and skipping the pump test are the mistakes that can leave you without water — or with a damaged pump — at the worst time.

Common Questions

The questions I hear most about backing up a well pump with an interlock.

Q: Can I just run an extension cord to my well pump?

No — a well pump is hardwired and usually 240-volt, which cords can't provide. It must be powered through an interlock or transfer switch, wired by a licensed electrician with a permit.

Q: What size generator do I need for my well pump?

It depends on your pump. Read its nameplate or ask your well company for its horsepower, then match a 240-volt generator with enough surge and headroom. Our sizing guide explains the method.

Q: Will the pump run constantly during an outage?

No — your pressure tank stores water, so the pump cycles on to refill it now and then. That lets you share generator power with other circuits like the furnace and fridge.

Q: Do I still need to store water if I have a generator?

Yes — keep several days of drinking water as a backstop, in case of fuel or generator trouble. The generator is one layer of the plan, not the whole thing.

> **★ More well questions?**
> Call or text (330) 200-8042 — water backup is one of my favorite things to help rural folks plan.

How I help with well-pump backup

This is bread-and-butter help for the rural families I serve.

I'll help you find your pump's real power needs, plan a generator sized to start and run it safely, work out how you'll cycle it during an outage, and set up sensible stored-water habits. I'll coordinate a licensed electrician for the interlock and its permit, and a well company if the pump itself needs attention. The result is simple: water you can count on when the power's out.

> **★ Reliable water, planned together**
> Call or text (330) 200-8042 and we'll make sure your taps keep running through the next storm.

The short version to carry with you

If the details blur, hold onto these.

- ❑ On a well, no power means no water — backing up the pump is usually the top priority.
- ❑ A well pump is hardwired and 240-volt — an interlock reaches its breaker; a cord never can.
- ❑ Bring the pump up on its own; size the generator for its big surge, with headroom, to protect the motor.
- ❑ Cycle the pump with the pressure tank, store drinking water and fuel, and test the pump before you need it.

> **✔ Keep this guide handy**
> For a well home, this is one of the most important guides in the set. Keep it with your home papers.

You don't have to do this alone

You just have to remember that a friendly, patient person is one call away.

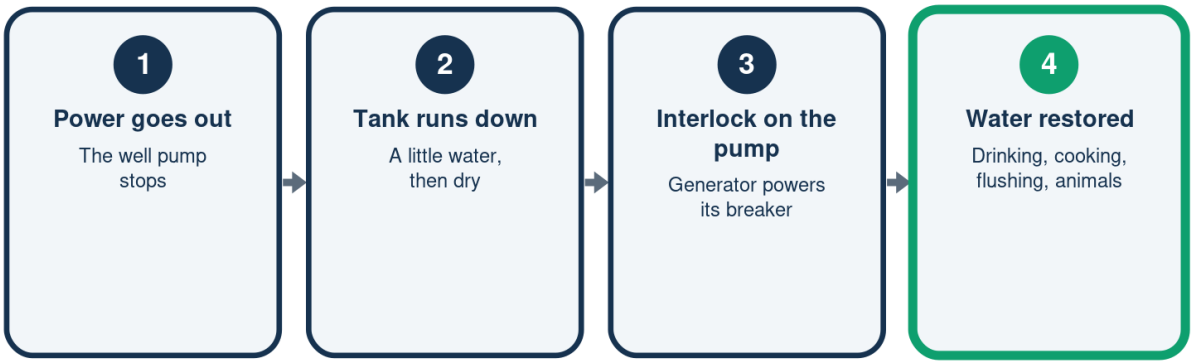
I hope this guide made backing up your well pump with an interlock kit feel a little less daunting and a lot more doable. Keep it in a drawer with your other home papers, come back to a page whenever you need it, and don't worry about memorizing anything.

When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat $99, and for the parts that don't need me on-site I can often help right on your screen for $49. Every visit comes with a 30-day, come-back-free guarantee. I don't do the licensed electrical or gas work myself — for that I'll help you line up a trustworthy local pro.

> **★ Bill's Home Tech — real help, close to home**
> Call or text me at (330) 200-8042, or visit BillsHomeTech.com. Serving Atwater and all of Portage County. 30+ years of patient, plain-English tech help — and if you're ever not 100% happy with a visit, I'll make it right or refund it. That's a promise. — Bill

Why a Well Home Needs Pump Backup

No power means no water -- unless you plan



The pump is hardwired 240V -- an interlock reaches its breaker safely.

Why a Cord Won't Power the Pump

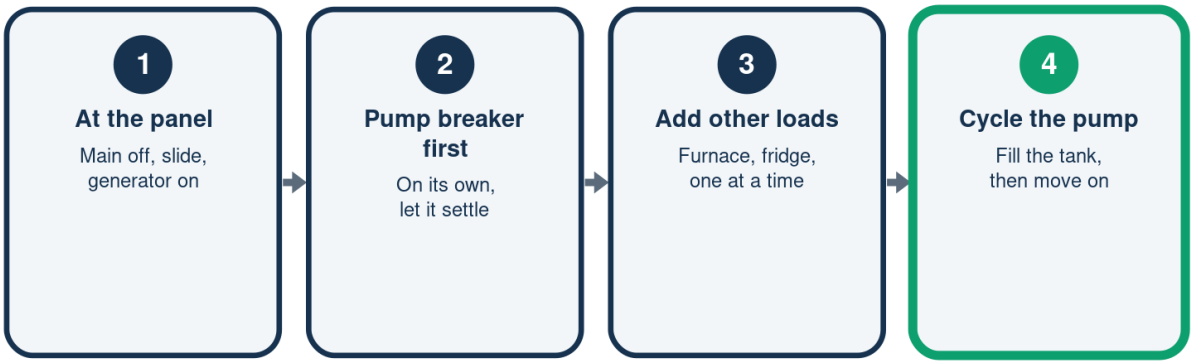
A well pump is a different animal

	A well pump	A plug-in fridge
Connection	Hardwired	Has a plug
Power	Usually 240 volts	Standard 120 volts
Needs	Interlock or switch	A cord can work
Surge	Very large	Modest

Only a proper panel connection can safely power a 240V pump.

Powering the Pump, in Order

Give the big surge a clear runway



Bring the pump up alone -- not while another motor is starting.

Your Rural Water Plan

Layers that keep water flowing

The generator is one layer -- stored water backs up your backup.

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Need a Real Person?

You do not have to remember all of it.
You just have to remember you can call.
Friendly, in-home tech help -- I come to you.

BILL'S PROMISE

If you are not 100% happy with a visit, I will make it right -- or refund it. No awkwardness, no fine print. That is how I would want to be treated.

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— Bill

Prefer help without a visit?

Bill can screen-share and fix many things remotely — a flat $49, free for Support Plan members.

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A Note From Bill

A quick note from Bill.

I write these guides to make home tech a little less frustrating, and I do my best to keep every step accurate and up to date. Still, every home, device, and setup is a bit different, so I can't promise a guide will match yours exactly or fix your particular problem. These guides are for general information only — they're not professional, legal, or financial advice, and they don't replace your device's own manual or the manufacturer's instructions. Please go slow, use your own good judgment, and use everything here at your own risk. If a step involves electrical wiring, a gas appliance, a water heater, plumbing, or climbing a ladder — or if anything just doesn't feel safe — please stop and call a licensed professional (or give me a call at 330-200-8042). Bill's Home Tech and Bill Davis can't be responsible for any damage, data loss, or injury that comes from using these guides. Thanks for reading, and stay safe out there.

— Bill

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